

New Gesneriaceae: a *Chirita* from Vietnam and a *Monophyllaea* from Sulawesi

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Abstract

Chirita bogneriana B.L.Burt is described from Ha Long Bay, Vietnam and *Monophyllaea chinii* B.L.Burt from Maros, Sulawesi.

Chirita bogneriana

A few years ago, living material of a species of *Chirita* (Gesneriaceae) was sent to the Royal Botanic Gardens Edinburgh by Josef Bogner (Munich Botanic Garden, Germany) for identification, by no means the first interesting gesneriad that we have received from him. The plant originally came from Ha Long Bay in northern Vietnam. I was unable to identify this plant, but, learning of the survey being made there by Nguyen Tien Hiep and Ruth Kiew, I decided to wait and see if they too had collected this plant. Their results have now been published (Nguyen and Kiew, 2000) and they record seven species of *Chirita*: one of them is *C. hamosa* R. Br., which belongs to the distinctive section *Microchirita*; the remainder are referable to section *Gibbosaccus*, as is the Munich plant: but, although three new species were recognized, none of the species found by them fits this, which is accordingly described here as *C. bogneriana*.

The following description is based on a well-grown pot-plant. It is likely that it was larger and more floriferous than would be found in the wild, where the species almost certainly grows in crevices of limestone rock.

Chirita bogneriana* B.L. Burt, *sp. nov.

(Sect. *Gibbosaccus* C.B. Clarke)

Typus: Vietnam, Ha Long Bay, spec. cult. in RBG Edinburgh (ex Bot. Gart. Muenchen comm. J. Bogner) under no. 19990640 (holo E; iso HN, K, M, SING).

Chirita hiepii Kiew (species in sinu Ha Long etiam incola) affinis sed foliis superne pilis brevibus inter se distantibus (nec pilis 4–6 mm longis

praecipue in marginibus) indutis; corollae limbo albo (nec purpureo), tubo ad basin laete luteo-viridi glabro (nec lineis duabus glanduloso-pilosis instructo) distinguenda.

Rosette herb with numerous ascending leaves and a vertical rootstock 2.5 cm diam. at top and rather abruptly narrowed at base. *Leaves* (including petiole) up to 10 cm long and 3 cm broad, lanceolate, gradually tapering into the 3.5 cm long flat petiolar part, the blade shortly pubescent above, the hairs well spaced (not overlapping) slightly longer and distinctly denser and appressed below, margin entire very slightly revolute, veins 4—5 on each side of midrib scarcely visible above, prominent below ascending at angle of 30°. *Inflorescences* compound pair-flowered cymes, solitary in the leaf axils, common peduncle 9—12 cm then branched, branches subtended by linear bracts 8 mm long, bracts and peduncle and whole inflorescence pilose with white gland-tipped hairs; branches usually branched again; whole inflorescence (in cultivated plant) 20—30 cm long, pedicels slender up to 6 cm long. *Calyx* tube 0.5 mm, lobes 8 x 1.2 mm, on the inside with minute globular glands and short (0.3 mm) acute hairs, on the outside with patent gland-tipped hairs 1—1.8 mm long. *Corolla* limb white, lobes glabrous inside, anterior lobes 6.5 x 5 mm, posterior 6 x 6 mm; tube 1 cm long, it and the outside of the lobes glandular-puberulous. *Stamens* arising 2.5 mm above base of corolla; the anterior pair fertile 5 mm long, rather thick, glabrous except for a few gland-tipped hairs near the connective, anthers 3.2 mm with widely divergent thecae; posterior pair 3 mm, sterile; dorsal staminode 0.5 mm. *Ovary* 6 x 1.3 mm, passing smoothly into 3 mm rather thick style, both with short hairs. *Stigma* with lower lobe bifid, upper aborted. *Fruit* not seen (seed is apparently not set on these plants).

Notes: *Chirita bogneriana* is most closely allied to *C. hiepii* Kiew, also from Ha Long Bay, but lacks the 4—6 mm long hairs on leaf margin and petiole which are a feature of that species. It also lacks the deep violet corolla lobes of *C. hiepii*, and the corolla tube is glabrous inside without the pair of glandular hairy bands of *C. hiepii*. From *C. halongensis* Kiew and T.H. Nguyen, it differs in the leaves being shortly pubescent, not glabrous, above and the veins on the under surface being distinctly prominent. *C. halongensis* shares with *C. hiepii* violet corolla lobes whereas the flowers of *C. bogneriana* are white, with just a greenish tinge at the base of the tube.

Monophyllaea chinii

This new species of *Monophyllaea* grows on limestone cliffs near Maros in

SW Sulawesi. It was first collected in 1986 by Dr S.C. Chin, well known for his revision of M.R. Henderson's account of the limestone flora of the Malay Peninsula. Ten years later, a second collection from the same general area, but from a different locality, was made by Dr. W. de Wilde and Dr B. de Wilde-Duyfjes. *M. chinii* belongs to subgen. *Monophyllaea* and is the first record of that subgenus from Sulawesi, the other monophyllaeas previously found on Sulawesi all belong to subgen. *Moultonia*.

Within subgen. *Monophyllaea*, *M. chinii* is to be associated with a small group of delicate species that has a rather scattered distribution and comprises species 13-16 in the revision of the genus (Burt, 1978). The species are *M. glabra* Ridl. from S Thailand and N Malaysia (Langkawi Islands), *M. hirticalyx* Franch. from C. Malaysia (Perak and Selangor), *M. musangensis* A. Weber (S. Kelantan – after the revision), *M. tenuis* B.L.Burt from the First (Kuching) Division of Sarawak, and the ill-known *M. longipes* Kraenzl. from the Philippine Island of Luzon.

The new *Monophyllaea chinii* is almost certainly an annual, as is *M. glabra*, which comes from an area with a distinctly seasonal climate. *M. tenuis*, certainly, and *M. hirticalyx* almost certainly, last for more than one flowering period. There remains much to be learnt about the duration of *Monophyllaea* and its control.

Although I have classified these delicate plants close to one another, it remains to be discovered whether they are really interrelated or whether each is more closely akin to more robust species in its own neighbourhood.

Monophyllaea chinii B.L.Burt, species nova ex affinitate *M. hirticalycis* Franch. et *M. tenuis* B.L.Burt sed plantis celebicis multo minoribus ut videtur annuis, caulibus pedunculis pedicellis pilis 1.5–2 mm longis indutis, pedicellis 8–12 mm longis patentibus, pilis in calyce 1.5 mm longis, interdum glandulosis distinguenda.

Typus: SW Sulawesi, Maros, Leangleang Prehistoric Park S.C. Chin 3408, 8 June 1986 (holo E; iso L) 'limestone hills, on vertical limestone cliff, flowers pale purple or white; small plants, longest leaf to 15 cm, stem to 15 cm'.

Stem (hypocotyl) slender, c. 3–10 cm long, pilose with patent hairs 2 mm long. *Leaf* solitary (macrocotyledon) 5–12 [–15 cm fide Chin] x 3–7.5 cm, more or less ovate, cordate at the base, thinly shortly hairy above, but with long hairs around the base of the peduncles which arise at the base of the midrib; lower veins matching the leaf outline, the lower ones strongly curved the upper ones straight. *Peduncles* 1–3, pilose with spreading hairs. Bracts absent. *Inflorescence* (incl. peduncle) up to c. 7 cm long, bearing

about 4—6 pairs of flowers, the lowermost pairs c. 1 cm apart. *Pedicels* strongly patent, 8—12 mm long. *Calyx* with tube 1 mm long, lobes 5 subequal c. 2.2 x 1.3 mm with slender hairs on the back c. 1.5 mm long some of them gland-tipped. *Corolla* bilabiate 10 mm long, tube 5 mm; lower lip 6.5 mm across minutely papillose inside, median lobe 3.5 x 3 mm, anterior laterals 3 x 3 mm, posterior 0.5 x 2.2. mm, glabrous; tube 5 mm long with a ring of hairs all round the inside just below the base of the filaments. *Stamens* 4, the fifth (dorsal) represented by a minute staminode; anterior pair with filaments 2.5 mm and anthers 0.8 mm long, posterior pair with filaments 1.5 mm and anthers 1 mm long, all filaments with a minute projection just below the anther, all anthers coherent. Disc annular 1.2 x 0.3 mm margin lobulate. *Ovary* conical 1 x 0.8 mm narrowed into 2 mm style, both glabrous; stigma 0.2 mm, slightly oblique, papillate. *Capsule* 1.5 x 1.5 mm, 2-(?finally 4-)valved, brown. *Seeds* 0.3 x 0.2 mm, light brown, coarsely reticulate.

Additional material: S W Sulawesi. Maros, NE of Wong Padang, c. 15 m alt., W. de Wilde & B. de Wilde-Duyffes 21847 15 July 1996 (E, L) 'limestone rock area, on rather dry half-shaded rock, locally gregarious. Plants rather palish green, more or less juicy; flowers pale lilac.'

Acknowledgements

The floral dissections and sketches by O.M. Hilliard are acknowledged with thanks.

References

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